

**National Marine Fisheries Service, Southwest Region  
California Coastal Pelagic Species Pilot Observer Program  
Informational Report – October 12, 2005**

**Background**

The National Marine Fisheries Service (NMFS), Southwest Region (SWR) initiated a pilot observer program for California-based commercial purse seine fishing vessels targeting coastal pelagic species (CPS) in July 2004. SWR personnel trained the first group of CPS observers in mid-July in Long Beach, California. Frank Orth and Associates (FOA), a private contractor, hired and provided observers for training and subsequent deployment. Six observers who had previous experience in other SWR-observed fisheries attended and completed the course. The training course emphasized a review of ongoing observer programs (drift gillnet, pelagic longline) and introduction to the soon-to-be observed fisheries (purse seine, albacore hook-and-line). The training curriculum included vessel safety, fishing operations, species identification, and data collection.

Near the end of the one-week observer training, SWR and FOA staff participated in meetings with CPS stakeholders in Long Beach and Monterey, California. The SWR had previously sent, via certified mail, a letter introducing the CPS observer program and inviting interested parties to the informational meeting. The mailing list was a combination of CPS Limited Entry Permit holders, Marine Mammal Exemption Certificate holders identified as using purse seine gear, fish processors, and CPS fishing industry representatives. Approximately twenty-five people in total attended the meetings. SWR staff explained the objectives of the CPS observer program; monitoring of bycatch discarded at sea and of protected species interactions with the CPS fleet. NMFS personnel detailed the Marine Mammal Authorization Program and the necessity for all observed vessels to obtain a current Vessel Safety Decal through the U.S. Coast Guard dockside vessel safety examination program. NMFS also introduced the contractor, FOA, who would be responsible for deploying observers aboard CPS vessels. SWR and FOA staff then enjoyed the opportunity to receive feedback and answer questions from those in attendance.

**Observer Protocol**

In late July, observers began going to sea aboard CPS vessels. Observers recorded data on trip specifics and protected species sightings/interactions which were recorded on data forms. Observers used the Oregon Department of Fish and Wildlife ‘Sardine Bycatch Observations’ form to record data on fishing gear characteristics, fishing operations, and target/non-target species catch and disposition. Observers had access to data field definitions in their SWR observer program Field Manuals. Most data detailing length, volume, or weight are obtained verbally from the vessel operator. Position and time data are recorded by the observer directly from hand-held or on-board electronics. Data fields include:

Trip Number  
Set Number  
Observer ID

Vessel ID  
Vessel Operator  
Port/Date/Time of trip beginning and end, including port stops  
Net Length and Net Depth in fathoms  
Mesh Size  
Date of Set  
Set Position (latitude and longitude) in degrees, minutes, and tenths of minutes  
Set Time  
Target Species  
Catch by species and Disposition (kept, returned alive/dead/unknown)  
- catch is recorded in units of tons, pounds, or number of individuals  
Protected Species Sightings and Interactions  
- a protected species (e.g., marine mammal, seabird, sea turtle) take occurs when the animal is caught under the net canopy (e.g., a California Sea Lion observed breathing at the surface through the net mesh) or otherwise injured or killed by the fishing gear – an animal simply jumping into and out of the encircled net during fishing operations is not counted as caught, but recorded as a sighting/interaction.

After one month of observer deployments, SWR and FOA staff held a meeting with all of the observers to share their experiences and discuss refinements to data collection. For example, the observers suggested recording the times of significant events during the set, not just the beginning and end of the set. Observers now record the following times; skiff released, net circled, 'rings up', begin pumping of catch into the fish hold, and all gear aboard. NMFS has since trained seven more observers for the CPS program. In July of 2005, NMFS and FOA also invited stakeholders to meetings in Long Beach and Monterey to share results and receive feedback from the fleet. Future needs of the CPS observer program include; standardization of data fields, development of a fishery-specific Observer Field Manual, construction of a relational database for the observer data, and creation of a statistically reliable sampling plan.

### **Data Collected**

Below is the data collected to starting in July of 2005 and ending in September 2005. Data is shown by target species (i.e., Pacific sardine, Pacific mackerel, squid or anchovy).

**NMFS/SWR Coastal Pelagic Species Pilot Observer Program  
Observed Catch Summary - July 2004 to September 2005**

**Target Species = Pacific Mackerel**

2 Observed Trips: 2 Los Angeles

Observed Sets = 3

Species	Target Catch	Incidental Catch	Bycatch Returned		
			Alive	Dead	Unknown
Pacific Mackerel	23.5 tons				
Spanish Mackerel	17 tons				
Bat Ray			2		
California Yellowtail			1		
Midshipman			1		
Sardine		17 tons			
Sea Cucumber		3			
Unid. Crab		1			
Unid. Flatfish		1	2	1	
Unid. Shark				1	

**NMFS/SWR Coastal Pelagic Species Pilot Observer Program  
Observed Catch Summary - July 2004 to September 2005**

**Target Species = Pacific Sardine**

27 Observed Trips: 12 Los Angeles, 3 Ventura, 7 Moss Landing,

1 Newport Beach, 1 Dana Point, 3 San Diego

Observed Sets = 56

Species	Target Catch	Incidental Catch	Bycatch Returned		
			Alive	Dead	Unknown
Sardine	946 tons		48 tons	8 tons	100 lb.
Anchovy		1.5 tons	4.5 tons		
Bat Ray		3	147	14	1
Bat Star			5		
CA Barracuda				3	
CA Halibut		5			
Giant Sea Bass			2		
Jacksmelt		1			
Midshipman				3	1
Pacific Bonito			10 lb.		
Pacific Electric Ray			1		
Pacific Mackerel		36 lb.	100 lb.		
Sanddab			25 lb.		
Scorpionfish/Sculpin		1			2
Sculpin				1	3
Seastar			3		1
Shovelnose Guitarfish			1		
Squid		3			
Starry Flounder			2		
Thornback Ray			2		
Unid. Crab					1
Unid. Croaker		15	1		
Unid. Flatfish		9	8		11
Unid. Mackerel		2 tons			
Unid. Octopus					2
Unid. Ray					2
Unid. Skate				3	
White Croaker		30			
Yellowfin Croaker		10			
California Sea Lion			45		
Unid. Gull			3	1	

**NMFS/SWR Coastal Pelagic Species Pilot Observer Program  
Observed Catch Summary - July 2004 to September 2005**

**Target Species = Market Squid**

37 Observed Trips: 19 Ventura, 1 Morro Bay, 2 Moss Landing, 3 Monterey,  
6 Los Angeles, 1 Santa Barbara, 1 Channel Islands Harbor, 4 Port Hueneme  
Observed Sets = 91

Species	Target Catch	Incidental Catch	Bycatch Returned		
			Alive	Dead	Unknown
Squid	801 tons		8.5 tons		
Anchovy			120 lb.		
Bat Ray			53	1	
Brittle Star				3000	
Jack Mackerel		175 lb.	15 lb.		
Octopus		1			
Pacific Mackerel		220 lb.	40 lb.	30 lb.	1
Pelagic Stingray			61		
Sanddab		3	2		4
Sardine		9 tons	12 tons	200	16
Seastar		2			52
Spanish Mackerel		20 lb.			
Squid Eggs					500 lb.
Unid. Crab		1	1		91
Unid. Flatfish		1	1		5
Unid. Mackerel		700 lb.	1 ton		
Unid. Ray			3		1
Unid. Skate		2	2	1	
Unid. Smelt		14			
Unid. Sole					1
Unid. Stingray			12		1
Unid. Thresher Shark		1			
California Sea Lion			81		
Harbor Seal			1		
Unid. Common Dolphin				1	
Unid. Gull			15	1	

**NMFS/SWR Coastal Pelagic Species Pilot Observer Program**

**Observed Catch Summary - July 2004 to September 2005**

**Target Species = Anchovy or Anchovy/Sardine**

7 Observed Trips: 2 Los Angeles, 2 Newport Beach, 1 Dana Point,

1 San Diego, 1 Moss Landing

Observed Sets = 10

Species	Target Catch	Incidental Catch	Bycatch Returned		
			Alive	Dead	Unknown
Anchovy	30.5 tons		5.5 tons		
Sardine	38 tons	5 tons	3.5 tons		
Bat Ray			4		
Midshipman			1		
Pacific Bonito			25 lb.		
Pacific Mackerel		8.5 tons			
Queenfish		55 lb.	10 lb.		
Round Stingray			1		
Sanddab			1		
Sculpin		2			
Seastar			1		
Spiny Dongish			1		
Unid. Croaker		35	65		
Unid. Fish		1			
Unid. Flatfish		15	1		
Unid. Rockfish			59		
Unid. Skate			1		
Unid. Turbot			1	1	
White Croaker		50 lb.	10 lb.		
Yellowfin Croaker		50 lb.	10 lb.		
California Sea Lion			5	1	
California Sea Otter			1		